QUESTION 2

24 June 1977

MEMORANDUM

SUBJECT: Relative Concern of Soviets About B-1 and Cruise Missiles

We agree with Secretary Brown's assessment that the Soviets are more concerned with cruise missiles than with the B-1 bomber. This concern, voiced in Moscow's continuing public complaint about the cruise missile, probably stems from the potential threat posed by large numbers of cruise missiles to Soviet air defenses and the fact that whereas the B-1 will be limited by a SALT TWO Agreement, the limitations on cruise missiles in that agreement are as yet unresolved. Because cruise missiles are relatively inexpensive to produce, the Soviets probably view a US cruise missile force, if unconstrained by SALT, in terms of a potentially unlimited number of difficult-to-detect nuclear weapons systems that could be deployed in ways only limited by the imagination.

Defensive Problems

Both the B-1 and cruise missiles represent difficult targets for existing Soviet air defense. The B-1 depends on a combination of system hardness, low altitude (60 meters) high speed flights (0.9 mach), SAM suppression weapons (SRAM), electronic countermeasures, and a reduced radar cross section for successful penetration. Cruise missiles depend primarily on a very small radar cross section, low altitude (to 15 meters) and fairly high speed (0.7 mach).

The characteristics of both the B-1 and the cruise missile will place a severe stress on all aspects of the Soviet air defense system. In the case of the B-1, however, the size of the B-1 force will be known and its possible penetration routes can be estimated. In the context of the SALT negotiations, the B-1 has not been a major issue. The Soviets also appear willing to accept air-launched cruise missiles (ALCMs) with a range of 2500 kms or less provided that these can be constrained to heavy bombers.

QUESTION 2

In contrast to ALCMs, the Soviets are particularly concerned with ship-launched cruise missiles (SLCMs) deployed on both surface vessels and submarines, and ground-launched cruise missiles (GLCMs). These systems apparently pose a greater threat to the Soviets because the warning time of an attack by such systems would be greatly reduced in comparison with the ALCM.

The U.S. SLCM, the Tomahawk, has been designed for flexibility and can be launched from a variety of platforms. There is both a short range version for tactical missions and a long range version for strategic missions. Both versions have the same airframe, thus making it virtually impossible to distinguish between the two by national technical means.

Technology Imbalance

In the Soviet view, another negative feature of US cruise missiles is the level of technology they represent. The pacing technology for most potential requirements for Soviet long range cruise missiles (LRCMs) is navigation and guidance. It is unlikely that the Soviets could develop inertial navigation systems for small LRCMs of the US type before the mid-1980s. Moreover, high speed on-board computers for very small volume-constrained strategic LRCMs will probably not be available at significant production rates until the mid-1980s.

Transfer

Compounding the above Soviet concerns is the prospect that the US might transfer to its allies cruise missile systems or the technology on which they are based. Technology transfer would enable our allies to build their own systems, further increasing the potential threat to Soviet air defenses. Such transfers of technology would be difficult to trace. To prevent this from happening, the Soviets are attempting to include a broad non-transfer provision in a new SALT agreement.

In contrast, the B-1 is an expensive and complex system. There is little chance that its transfer to U.S. allies could be concealed.

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QUESTION 1

24 June 1977

SUBJECT: Dr. Brzezinski told Secretary Brown that he had received information that Ambassador Dobrynin had changed his appraisal of the US SALT position since the TANNANGER report that I provided to Secretary Brown. Do we have anything later indicating Dobrynin's views?

We have no new information indicating a change of view.

[redacted] REGISTRY FILE T-10.1